

What is claimed is:

1. A system for automatic indexing and archiving of a plurality of paper documents in both hard and soft forms, said system comprising:

- (a) a scan management subsystem for managing a plurality of scanners;
- 5 (b) an access management subsystem for managing and controlling access to said system;
- (c) a print management subsystem for managing a plurality of printers;
- (d) a vault management subsystem for managing a plurality of vaults;
- (e) a folder management subsystem for managing a plurality of folders;
- 10 (f) a log management subsystem for managing a plurality of accesses to said system;
- (g) a version management subsystem for managing a plurality of versions of a paper document;
- (h) a consistency verification subsystem for managing consistency of archived
- 15 paper documents;
- (i) a cover page analysis subsystem for analyzing cover page of a paper document;
- (j) a signature verification subsystem for verifying signature in a paper document; and
- 20 (k) a paper document representation subsystem for managing representation of a paper document in both hard and soft forms.

2. The system of claim 1, wherein said scan management subsystem comprises means for managing a plurality of scanners comprising determination of a free scanner with
- 25 a plurality of properties, enabling and disabling of a scanner, verification of user information, and initiating and stopping of scanning of a plurality of sheets of paper of a paper document.

3. The system of claim 1, wherein said access management subsystem comprises means
- 30 for managing and controlling access comprising determination of a plurality of access rights of a user based on role of said user, controlling of access to retrieve a paper

document, controlling of access to store a paper document, controlling of access to obtain a copy of a paper document, and controlling of access to get display of a paper document.

5 4. The system of claim 1, wherein said print management subsystem comprises means for managing a plurality of printers comprising determination of a free printer with a plurality of properties, enabling and disabling of a printer, verification of user information, ensuring of consistency between hard and soft forms of a paper document, and initiating and stopping of printing from soft form of a paper document.

10 5. The system of claim 1, wherein said vault management subsystem comprises means for managing a plurality of bins of a vault comprising determination of a free bin for storing of an input paper document in said vault, determination of a bin containing a paper document, putting back of a filled tray of a bin into said bin of said vault,
15 putting back of an empty tray of a bin into said bin of said vault, controlling of movement of tray of a bin from said bin to near a scanner, controlling of movement of tray of a bin from near a scanner to said bin of said vault, checking of whether a tray contains a paper document or not, controlling of movement of tray of a bin from said bin to near an eject bin, and controlling of movement of tray of a bin from near
20 an eject bin to said bin in said vault.

6. The system of claim 1, wherein said folder management subsystem comprises means for managing a plurality of folders comprising creation of a new folder with a unique folder identifier and containing folder details with a scanner configuration
25 information to store a soft form of a new input paper document, creation of a new folder with a unique folder identifier to store a soft form of a new version of a paper document, updation of an existing folder with version information, verification of signature in a folder with signature in corresponding paper document, verification of contents of a folder with contents of corresponding paper document, updation of a
30 folder with corresponding paper document delivery information, and providing of a plurality of folders based on user identifier and folder category.

7. The system of claim 1, wherein said log management subsystem comprises means for managing access logs comprising tracking of scanner usage, tracking of vault usage, tracking of printer usage, tracking of a plurality of paper document accesses, tracking of a plurality of folder accesses, and logging of usage information containing timestamp, user identifier, scanner identifier, bin identifier, printer identifier, eject bin identifier, folder identifier, and document identifier.
8. The system of claim 1, wherein said version management subsystem comprises means for managing a plurality of versions of a paper document comprising scanning of a cover page with a pre-defined format of said paper document, analyzing of an image of said cover page, identification of "Version" field of said pre-defined format in said image, identification of an image segment following "Version" field of said pre-defined format in said image, recognizing of a plurality of characters in said image segment, determination of a document version number of said paper document based on said plurality of characters, determination of a folder corresponding to said paper document, obtaining of a folder version number of said folder, and creation of a new folder based on said document version and said folder version.
9. The system of claim 1, wherein said consistency verification subsystem comprises means for managing consistency between a paper document stored in a vault and a folder stored in a database comprising comparison of document details in said paper document and said folder, comparison of creation details in said paper document and said folder, comparison of submission history in said paper document and said folder, pre-processing of a document page image of a page of said paper document, pre-processing of a folder page image of a page of said folder, wherein said folder page image corresponds with said document page image, comparison of said document page image and said folder page image, and comparison of image of each of plurality of pages of said paper document with image of corresponding page of a plurality of pages of said folder.

10. The system of claim 1, wherein said cover page analysis subsystem comprises means for analyzing a cover page in a pre-defined format of a paper document comprising obtaining of a plurality of field names in said pre-defined format, obtaining of a plurality of image segments, wherein each of said plurality of image segments follows a field name of said plurality of field names in said paper document, recognition of a plurality of characters in each of said plurality of image segments, and extraction of signature image based on signature field in said pre-defined format in said paper document.
11. The system of claim 1, wherein said signature verification subsystem comprises means for verifying a signature in a paper document comprising obtaining of said signature in said paper document, obtaining of a folder signature in a folder, wherein said folder corresponds with said paper document, pre-processing of said signature, pre-processing said folder signature, extraction of a plurality of features from preprocessed said signature, extraction of a plurality of features from preprocessed said folder signature, comparison of normalized, preprocessed said signature with normalized, preprocessed said folder signature, and comparison of said plurality of features of said signature with said plurality of features of said folder signature.
12. The system of claim 1, wherein said document representation subsystem comprises means for representing an input paper document in a hard form and a soft form, wherein said input paper document comprises a cover page, and a plurality of sheets of paper, said hard form is represented by said input paper document, a cover page of said soft form is represented by a set of fields in a database, and as an image of said cover page of said input paper document, a soft form of each of said plurality of sheets of paper of said input paper document is represented by an image of corresponding sheet of paper of said input paper document.
13. A network based system for automatic indexing and archiving of a plurality of paper documents comprising a plurality of touch sensitive user terminals, a plurality of scanners, wherein said plurality of scanners form a scanner network, a plurality of

printers, wherein said plurality of printers form a printer network, a plurality of eject bins, a plurality of vaults, wherein said plurality of vaults form a vault network, and a PIAS server.

- 5 14. The system claim 13, wherein said PIAS servers interacts with said scanner network, said printer network, said vault network, said plurality of user terminals, and said plurality of eject bins through a local area network.